SOME CRITICISMS ON DR. F. HAAS' MONOGRAPH OF THE UNIONIDÆ.

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The well known Monograph of Unionidæ of H. C. Kuster is now being continued by Dr. F. Haas, and 35 plates of fine figures have been received. Dr. Haas is a prolific maker of new genera, he having added already 14 new ones to the tremendous total, although three plates only deal with the groups of eastern Asia. The new genera are fully as heterogeneous as are many of those of his predecessors.

Shells so close as *Nodularia jourdyi* Morelet and *douglasiæ* Greg. are widely separated, and yet such diverse material as *jourdyi* and *asperula* Lea are placed together. The *Physunio crossei* and *Nodularia rusticus*, by Simpson's classification, are placed by Dr. Haas in the same genus, etc., etc.

The specific determinations are equally open to criticism. A few of the more striking are as follows: On plate 33, figs. 7, 8 and 9 are given as *P. micropterus* Morelet, and *Unio pulcher* Tapperone-Canefri is given as a synonym. While these species bear considerable resemblance in their external facies, yet they are so diverse as to warrant their being placed in different genera, as was properly done by Mr. C. T. Simpson. *P. micropterus* has very small but well-defined beak cavities, while *pulcher* has none. *L. pulcher* has a row of several dorsal muscle scars, while *micropterus* shows none (*i. e.*, hidden beneath the interdention). More especially, *micropterus* has a "third muscle scar" over the anterior adductor, not shown by *pulcher*, and the latter has the anterior adductor and protractor scars *widely separate* (which is shown in Haas' figure), while in *micropterus* they are confluent. Other differences might be noted, the whole forcing us to place *micropterus* in *Physunio*, while the *pulcher* belongs to *Lamellidens*, as Mr. C. T. Simpson properly placed them.

Figures 11 and 12, plate 31 are said to be figures of the *Harmandia somboriensis* Rochebrune. If these figures are from authentic specimens, then *Harmandia* must lose its place as a genus, for figures 11 and 12, are young *Hyria*, from South America. Even more singular is the treatment of the genus *Trapezoideus*, on plates 32 and 33. It is impossible that the sundry figures given as *Trapezoideus*

misellus Morelet can represent a single species. If Fig. 4, plate 33, is not an abnormal or diseased shell it must be a *Solenaia*, probably the *Solenaia* (*Mycetopus*) *rugatus* Sowerby.

The figures 3, and 4, plate 32, are equally impossible. They are supposed to be *Trapezoideus foliaceus*, Gould, but are really an undescribed shell, not far removed from the *N. dimotus* Lea (figured in the work, on plate 19). I have had for several years, a set of these, purchased, with a label "*Trapezoideus foliaceus*, Gould, Ex. Berlin Museum, *Birma*," and possibly a part of the same lot figured by Dr. Haas. Not being able to match them with Gould's species, I submitted them to Dr. Dall, who placed them near to *dimotus*, I, therefore propose for the species as figured by Haas, (fig. 3, and 4, plate 32) the following name.

PARREYSIA DALLIANA n. sp.

Shell small, rather thick, somewhat ovate. Length (of a medium specimen) 4.5; height (near end of ligament) 2.7; Diameter 2, mm. Rounded before, basal and dorsal lines nearly straight, post basal point rounded. Epidermis olivaceus, greenish in young shells, brownish in old specimens, and frequently *bleached*. Beaks very small, pointed, low, and incurved, with fine zigzag radial sculpture, which extends a little down the shell, and especially down the post slope; in dirty, or eroded specimens hardly to be noticed. The shell is a little inflated, the post ridge rounded. Inside the nacre is soft cream or white. The left valve has two cardinals, the anterior blade-like, and the posterior much smaller, and tubercular. The laterals are double (or even inclined to be trifid); in the right valve the cardinals are split or double, and the laterals single.

The anterior cicatrices are confluent, and also those of the posterior.

Habitat is stated to be "Birma."

The shell is stouter, shorter and more inflated than *P. foliaceus*, and the posterior portion is not as green. The species lacks the sculpturing of *P. dimotus*, and the direction of the cardinal teeth is different. The shell is a *Parreysia* according to Simpson's ideas of classification.